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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,525	04/16/2004	Charles D. Kim	EMP-138US	2153
24314	7590	01/10/2005	EXAMINER	
JANSSON, SHUPE & MUNGER, LTD 245 MAIN STREET RACINE, WI 53403			COURSON, TANIA C	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/826,525

Applicant(s)

KIM, CHARLES D.

Examiner

Tania C. Courson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-15 and 17-19 is/are rejected.
- 7) ☒ Claim(s) 6 and 16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 2 is objected to because of the following informalities: in line 2, “an second” should read “a second”. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 7-15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over von Wedemeyer (US 5,479,717) in view of Jordan (US 3,574,379).

von Wedemeyer discloses a level indicator including the following:

With respect to claims 1-2 and 7-8:

- a) a body (2) including a level face (6) for measuring a surface (Fig. 14), the body extending from a first end to a second end (Fig. 14), at least one vial (3) mounted in the body at a predetermined angular relationship to the level face (Fig. 14) and a first end cap (5) fixed with respect to the first end (Fig. 14), whereby the first end cap absorbs impacts to the outer layer to prevent damage to the body (column 5, lines 4-15);

- b) further comprising a second end cap (5) fixed with respect to the second end (Fig. 14)
- c) wherein the first end cap is adhered to the body (column 5, lines 4-15);
- d) wherein the body defines a body profile at the first end (Fig. 14), the outer layer defines an outer profile which matches the body profile (Fig. 14).a

With respect to claim 9:

- a) a first cap (5) mounted to a first end (Fig. 14) and a second cap (5) mounted to a second end (Fig. 14), the end caps having an outer layer (Fig. 14), whereby impacts to an end cap result in compression of the end cap and dissipation of the impact to prevent damage to the level (column 5, lines 4-15).

With respect to method claim 17:

- a) providing a level having a body (2) defined by first and second ends (Fig. 14), adhering an end cap (5) to each end (Fig. 14), whereby each end cap absorbs impacts to the respective outer surface by allowing a respective outer surface to be moved toward the respective end during the respective impact (column 5, lines 4-15).

von Wedemeyer does not disclose the following:

- a) an end cap comprising an outer layer and an intermediate layer, the intermediate layer fixed to the outer layer and having lower density than the

- outer layer, the intermediate layer positioned between the outer layer and the body;
- b) wherein the end cap further comprises an inner layer having a higher density than the intermediate layer, the inner layer connecting the intermediate layer to the body;
 - c) wherein the outer layer is acrylonitrile butadiene styrene, the intermediate layer is thermoplastic rubber, and the inner layer is acrylonitrile butadiene styrene;
 - d) and the intermediate layer includes a baffled profile including portions matching the body profile and portions smaller than the body profile;
 - e) wherein the intermediate layers have lower densities than the outer layers and the intermediate layers are compressed more than the outer layers than the outer layers during an impact.

Jordan teaches an shock absorbing indicator that consists of an end cap comprising an outer layer (20) and an intermediate layer (30), the intermediate layer fixed to the outer layer (Fig. 3), the intermediate layer positioned between the outer layer and the body (Fig. 3), an inner layer (20) connecting the intermediate layer to the body (Fig. 3), wherein the outer layer is acrylonitrile butadiene styrene (column 2, lines 16-18), the intermediate layer is thermoplastic rubber (column 2, lines 38-51), and the inner layer is acrylonitrile butadiene styrene (column 2, lines 16-18), the intermediate layer includes a baffled profile including portions matching the body profile and portions smaller than the body profile (Fig. 3), wherein the intermediate layers

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are compressed more than the outer layers than the outer layers during an impact (column 2, lines 16-18). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the level indicator of von Wedemeyer, so as to include an outer and intermediate layer made of acrylonitrile butadiene styrene and an inner layer made of thermoplastic rubber, as taught by Jordan, so as to provide enhanced impact absorbing capability during use of the indicator.

Regarding the density of the layers: Von Wedemeyer and Jordan disclose a layers having varying densities but does not disclose a particular value for this parameter. However, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide an intermediate layer having a lower density than the outer layer and an inner layer having a higher density than the intermediate layer, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the "optimum range" involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Therefore, one skilled in the art would change the density of the layers in order to suit the needs of the user of the device.

Allowable Subject Matter

4. Claims 6 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The prior art cited on PTO-892 and not mentioned above disclose a leveling device with end caps and impact absorbing devices

Krehel et al. (US 6,792,686 B2)

Wright et al. (US 5,940,978)

Marth et al. (US 4,991,303)

Letizia (US 5,165,650)

Kallabis et al. (US 2003/0163927 A1)

Brightwell et al. (US 2003/0145541 A1)

Dollgener et al. (US 3,300,250)

Hiles (US 4,346,205)

Kolsky (US 5,274,846)

Bayer et al. (US 5,980,143)

Garrison (US 5,363,631)

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tania C. Courson whose telephone number is (571) 272-2239. The examiner can normally be reached on Monday-Friday from 8:00AM to 4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez, can be reached on (571) 272-2245.

The fax number for this Organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DIEGO F.F. GUTIERREZ
SUPERVISORY PATENT EXAMINER
GROUP ART UNIT 2859

TCC
January 6, 2005